

SAMPLE YEAR 1 PROGRAM EVALUATION TOOL
Singapore Math Problem Solving
Prepared by Sheila Larson

1. What is the readiness for implementing the Singapore Math Problem Solving Program?

Stakeholders – including staff, parents, students of our K-2 and 3-5 Elementary Schools - are well-prepared to implement Singapore Math problem solving strategies. They have read and can articulate the research foundation and regularly use the terminology found in Singapore Math in conversation with each other, with students, and with parents. Staff, students and parents express a high level of interest in, support for and commitment to this method of solving story problems. Specific concerns have been addressed and solutions have been implemented. Staff is able to integrate Singapore Math within the context of other building/district initiatives.

<p>a) What evidence do you have that stakeholders believe and can articulate the research behind the decision to implement the program? <i>Teams of teachers have read and shared information related to Singapore Math’s effectiveness for improving math problem solving skills. Staff compared present math practices to those in Singapore Math. Teachers are able explain the differences in methodologies. Following training sessions, parents expressed an understanding of the reason for the change.</i></p>
<p>b) What evidence do you have that stakeholders are really committed to the program with both hearts and minds? <i>Math achievement data has been declining in grades 4-8. Teachers were committed to improving math scores and focusing in on what’s BEST for students. Teacher teams shared ideas and materials regarding this program as they met regularly in their learning teams and just discussed MATH.</i></p>
<p>c) What evidence do you have that stakeholder (staff, parents, students) concerns about the program have been identified and addressed? <i>Parent comments and concerns were answered through follow up letter/emails home. Concerns were addressed at numerous staff discussion, and notes were taken to ensure follow-up, if needed.</i></p>
<p>d) What evidence do you have that staff is able to integrate this program with other existing initiatives? <i>Staff surveys showed that teachers were able to integrate Singapore Math with their existing math program without jeopardizing existing initiatives. The School Improvement Plan includes focused math training using Singapore Math for the next three years. K-6 Math Pacing Guides were adapted to implement Singapore Math.</i></p>

Suggested Evidence for Question 1:

- | | |
|--|--|
| <ul style="list-style-type: none"> ● meeting agendas/minutes ● books/papers about the program ● staff surveys ● SI Plan elements ● professional development materials ● conference/workshop attendance | <ul style="list-style-type: none"> ● data collection plan; data analysis work ● stakeholder survey results ● suggestion box ideas collected ● SI team agendas ● focus group interviews ● School Improvement Plan |
|--|--|

Given the evidence you've assembled, choose one overall rating for Question 1:

What is the readiness for implementing the program (initiative, strategy, activity)?			
Stakeholders are fully prepared to implement.	Support and commitment are generally high, but some concern or work remains.	Some promising elements exist, but are mixed with major gaps in knowledge or confidence.	Interest and/or commitment are low.
NEXT STEPS: What action steps are needed to increase readiness to implement the program? Continue 2 nd year of implementation. Communicate with new stakeholders the vision/goal of implementation.			

2. Do participants have the knowledge and skills to implement the Singapore Math Problem Solving Program?

K-5 staff are able to clearly articulate the specific steps needed to infuse Singapore Math into their daily lessons as well as how following specific vocabulary and consistent steps of instruction will change practice as a result of its implementation. K-5 staff and administrators can articulate district, building, and grade level achievement goals for math problem solving. K-5 staff has begun to demonstrate their ability to apply the knowledge and skills required to successfully implement the Singapore Math with fidelity. Professional learning opportunities were provided to address gaps in knowledge and skills

a) What evidence do you have that participants share a vision of how practice will change as a result of the program? *Anecdotal notes from staff, grade level, and team meetings and discussions were used to identify a shared vision. Conversations regarding math used terms and language that reflected Singapore Math terms/language.*

b) What evidence do you have that administrators demonstrate the knowledge and skills to assess the effectiveness of the program? *Building principals were the force behind implementation. Administrators have attended multiple trainings with lead teachers and staff. Building principals are able to identify critical components that each teacher must follow to ensure program fidelity. Planned walk-throughs to see Singapore Math in action were part of the evaluation process to determine effectiveness of implementation.*

c) What evidence do you have that opportunities are sufficient for staff to learn the knowledge/skills identified as essential to the program? *Staff trainings were held biweekly before and after school to meet individual teacher's needs. Action plans from these sessions were kept and referenced throughout the implementation, and needs and changes were documented. Grade level chairpersons reported needs to principals. Principals met with School Improvement Teams to plan additional training for the upcoming year.*

d) What evidence do you have that staff is able to apply the acquired knowledge and skills? *Evaluation surveys were administered after each training session. Results were shared with grade level chairs and administration. Singapore Math lessons were regularly practiced and reviewed by teachers at grade level sessions to ensure that consistent instruction was being implemented.*

Suggested Evidence for Question 2:

- Minutes of professional conversations
- Self-assessment checklists,
- Staff surveys,
- Superintendent or administrator observations/walkthroughs
- Professional learning agendas, sign-in sheets
- program simulations, administrator observations

Given the evidence you've assembled, choose one overall rating for Question 2:

Do participants have the knowledge and skills to implement the program?			
Participants have sufficient knowledge and skills to succeed.	Much knowledge and skill are evident, but few skills (or some knowledge bases) still need work.	A solid start is documented, but many skill levels and much knowledge need to be acquired.	Participants are beginning to acquire the necessary knowledge and skills
NEXT STEPS: What action steps are needed to improve participants' knowledge and skills? <ol style="list-style-type: none"> 1. Continue present plan. 2. Provide a "teachers Singapore Math Reference Center" with shared work/ideas from classrooms. 			

3. Is there opportunity for high quality implementation?

Building and district administrators provided significant support for implementing Singapore Math. Sufficient funds have been allocated and continue to be managed by building principal and or program director. Adequate resources are available for first-year implementation, including time for staff collaboration in various forms. Clearly defined structures/protocols are in place to collect and review Singapore Math implementation data.

a) What evidence do you have that administrative support is sufficient to get the results you intend?

Building principals have worked closely with the Curriculum Director to maximize Title II funds. Singapore Math Strategies have been presented to School Board Curriculum Committee. District Funds have been allocated to support three year implementation.

b) What evidence do you have that the financial resources and allocated time are sufficient to get the results you intend? *Grade level chairpersons reported needs (based on minutes from grade level meetings) to building principals through monthly meetings. Agendas and minutes were emailed to staff. Building School Improvement Math Committees worked closely with Curriculum Director to ensure that math trainings were supported and lessons were reflected in the Math Pacing guides. Lesson plans were adjusted to reflect increased time needed for student instruction and practice.*

c) What evidence do you have that staff is collaborating to support the program?

Increased time spent by teachers in professional learning teams centered on math lessons. Minutes/notes were shared with grade levels and then at staff meetings.

d) What evidence do you have that structures are in place to collect and review implementation data? *Predetermined mini tests were given to see student progress. Brief staff surveys regarding implementation were taken by grade chairs and evaluated by School Improvement Math Committees.*

Suggested Evidence for Question 3:

- | | |
|--|---|
| <ul style="list-style-type: none">• agendas/minutes• action plans• email correspondence• focus group and/or anonymous surveys• budget sheets• logs• inventories• school schedules | <ul style="list-style-type: none">• curriculum pacing guides• collaboration models (such as Professional Learning Communities, Collaborative Action Research, Lesson Study Teams)• staff meeting results• Protocols for reviewing formative assessment |
|--|---|

Given the evidence you've assembled, choose one overall rating for Question 3:

Is there opportunity for high quality implementation?			
Necessary support and resources (time, funding, and attention) are solidly in place.	Many necessary resources and opportunities are aligned with program goals, but more are needed.	Basic resources and opportunities are available, but significant gaps need to be filled.	Opportunity and resources are just beginning to align in support of the program.
NEXT STEPS: What action steps are needed to ensure opportunity for high quality implementation? 1. Continue as planned for years two and three.			

4. Is the Singapore Math Program implemented as intended?

All personnel involved in Singapore Math Problem Solving are implementing the strategies with fidelity according to the research and are carrying out responsibilities by their proposed timelines. They use clearly defined protocols to collect and review interim implementation data to identify unintended consequences. Singapore Math leaders consider adjustments guided by implementation data while maintaining the integrity of results.

a) What evidence do you have that implementation adheres to strategies, timelines and responsibilities? *Surveys administered to staff indicate that teachers are somewhat following the expected delivery of lessons using the Singapore Math Problem Solving model. Special Education classrooms have been the most effective in implementation according to true Singapore Math strategies and timelines.*

b) What unintended consequences (good and bad) have occurred? *For the first time teachers are regularly and openly talking about math instructional practices. The communication between special and regular education teachers now has a common focus.*

c) What interim adjustments are suggested by implementation data? How might these adjustments affect the integrity of the results? *More staff instruction is needed in how to give effective feedback to struggling students.*

Suggested Evidence for Question 4:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Principal's walkthroughs • Number of staff implementing with fidelity • Model lessons • Surveys • Coaching schedule • Agendas and minutes of common planning time/meetings • Record of funds used | <ul style="list-style-type: none"> • Lists of acquired resources • Collegial visits • Focus group interviews • Debriefing following model lessons • Collegial observations • Training agendas & material • Program Time Line |
|---|---|

Given the evidence you've assembled, choose one overall rating for Question 4:

Is the program implemented as intended?			
All research-based elements have been implemented with fidelity following the proposed timelines.	Critical elements have been implemented, but work on consistency and depth remains.	The overall design is in place, but variations in practice are evident and may be adversely affecting results.	Parts of the program are working, but others have yet to be implemented.
NEXT STEPS: What action steps are needed to ensure faithful implementation of program plans? <ol style="list-style-type: none"> 1. Year Two of implementation will continue as planned. 2. Continue staff and student monitoring through surveys, informal discussions, and student/parent feedback. 			

5. What is the program's impact on students?

The K-5 achievement results on state or district wide assessments do not reflect this initial year's work. The impact on achievement gaps between the relevant subgroups and their counterparts based on the measurable objectives from School Improvement Plans cannot yet be determined. Interim assessment results do indicate progress toward proficiency for all students to the satisfaction of all stakeholders.

a) What evidence do you have that achievement results compare positively to state and local baseline data? *It is not yet possible to compare local data with state results at this time due to only one year of implementation. Local common assessments were developed and first year results will be a baseline.*

b) What evidence do you have that achievement gaps were narrowed between each subgroup and their counterparts? (for example: ELL vs. non-ELL)
Initial local data from interim assessments and performance assessments indicate that struggling students are improving problem solving understanding with additional support from Title I para-pros and special education staff. Individual student data is recorded in Data Director and will be able to be analyzed through years two and three.

c) What do student achievement results suggest for modifying the program?
No modifications are needed at this time. Continue with plan and include new stakeholders in any needed training.

d) What evidence do you have that stakeholders are satisfied with results? *Surveys administered to students, staff, and parents have shown that there 17% of staff still feel more training is needed due to not all students progressing as expected. 75% of students and parents feel that Singapore Math has improved their use of problem solving skills.*

e) What evidence do you have that you met the School Improvement Plan's SMART objectives?
The SMART objective (All students will improve Math Problem Solving Skills by Fall, 2013 as evidenced by pre/post tests based on Singapore Math Problem Solving Strategies) has not yet been met. Initial local data indicates that we are on the right track.

Suggested Evidence for Question 5

- | | |
|---|--|
| <ul style="list-style-type: none">• State assessment scores on reading, writing and mathematics• School's district wide benchmark assessments compared to proficiency standards as set by the district | <ul style="list-style-type: none">• Subgroup performance on state and district wide assessments?• Interim assessment results?• Stakeholders satisfaction surveys addressing student achievement results? |
|---|--|

Given the evidence you've assembled, choose one overall rating for Question 5 :

What is the program's impact on students?			
Achievement results show proficiency (or satisfactory growth) across all analyzed groups & sub-groups	Most results show proficiency or satisfactory growth, but a few remain below expected levels.	Some proficiency and /or growth results are positive, but results are predominantly disappointing.	Results fail to meet identified targets.
NEXT STEPS: What action steps are needed to increase impact on student achievement? <ol style="list-style-type: none"> 1. Continue Program Implementation 2. Ensure additional training and follow up occur with needed stakeholders. 3. SI Math Team review and revise plan based on summary results from interim data. 4. Acknowledge/support/share successes with all stakeholders. 			

CONCLUSIONS: Should the program be continued/ institutionalized?

Singapore Math Problem Solving Strategies should continue as our K-5 math initiative. The preliminary local data and teacher training/support shows that we are making progress.

a) To what extent was this the right program to address your need? The initial implementation of Singapore Math Problem Solving Strategies indicates that with continued training this program will meet our goal of improved math problem solving.
a) Are adjustments needed? If so, which ones? Plans include additional training for new stakeholders and additional support for teachers who are not showing progress as expected.
b) What is needed to maintain momentum and sustain achievement gains? Monitoring of teacher use (lesson plans). Monitoring of student achievement (Results of assessments in Data Director or anecdotal reports)
c) Are the benefits of the program sufficient to justify the resources it requires? Singapore Math does not require high costs to implement except for teacher time commitment; teacher comments indicate a willingness to embed strategies into their practice.
d) How might these results inform the School Improvement Plan? There will be minimal change in School Improvement Plans. The School Improvement teams will adjust building plans to reflect above needs.

For questions about the MDE Evaluation Tool, please contact Shereen Tabrizi, Ph.D., Office of Field Services-MDE at 517 373-6066 or at TabriziS@michigan.gov